

**PATENT**

Attorney Docket No. A-72072-1

Dorsey File No. 460930-00007

**THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re application of:

SPANGLER et al.

Serial No.: 10/763,413

Filing Date: January 23, 2004

For: *Biosensors Utilizing Dendrimer-  
Immobilized Ligands and Their Use  
Thereof*

Examiner: Not Yet Assigned

Art Unit: 1645

CERTIFICATE OF MAILING

I hereby certify that this correspondence, including listed enclosures, is being deposited with sufficient postage with the United States Postal Service as First Class Mail in an envelope addressed to: Commissioner for Patents, P.O. BOX 1450, Alexandria, VA 22313-1450 on:

Dated: August 31, 2004

Signed: Careyna Peralta  
Careyna Peralta

**INFORMATION DISCLOSURE STATEMENT**

Commissioner for Patents  
P. O. Box 1450  
Alexandria, VA 22313-1450

Sir:

In satisfaction of the duty of disclosure under 37 C.F.R. § 1.56, and in accordance with the provisions of 37 C.F.R. §§ 1.97 and 1.98, Applicants wish to draw the attention of the U.S. Patent and Trademark Office to the references cited on the accompanying form PTO/SB/08A-B, Substitute for form PTO 1449. In accordance with 1273 Off. Gaz. Pat. Off. 1, 8/5/2003, no copies of U.S. patents and U.S. published applications are enclosed. Copies of all other references are enclosed.

None of the foregoing references is believed to disclose the invention as claimed.  
Nothing herein shall constitute an admission concerning the contents of any of the cited

Serial No.: 10/763,413  
Filing Date: January 23, 2004

references, nor shall the inclusion of a reference herein be considered an admission that the reference constitutes prior art against the invention claimed in the above-identified application. Submission of the present document shall not be construed as an admission that a search has been made or that better art does not exist.

As far as is known to the undersigned, this Information Disclosure Statement is being filed within three months of the filing date of a national application, within three months of the date of entry of the national state in an international application, or before the mailing date of a first Office Action on the merits as set forth in 37 C.F.R. § 1.97(b), and therefore no fee is required.

While no further fee is believed to be due, if this belief is in error, the Commissioner is authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No. 50-2319 (Our Order No. 460930-00007 (A-72072-1/RMS)).

Please direct any calls in connection with this application to the undersigned at (415) 781-1989.

Respectfully submitted,  
DORSEY & WHITNEY LLP

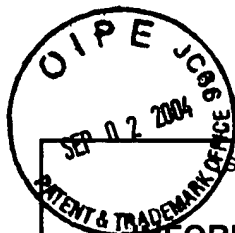
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Attachments:

Form PTO/SB/08A-B, Substitute for form PTO 1449  
13 references



<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (use as many sheets as necessary)				<b>Complete if Known</b>	
				Application Number	10/763,413
				Filing Date	January 23, 2004
				First Named Inventor	SPANGLER, Brenda D.
				Art Unit	1645
				Examiner Name	Not Yet Assigned
Sheet	1	of	1	Attorney Docket Number	A-72072-1 (460930-7)

U.S. PATENT DOCUMENTS					
Examiner Initials*	Cite <sup>1</sup> No.	U.S. Patent Document Number-Kind Code <sup>2</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	A1	6,197,515 B1	03-06-2001	Bamdad et al.	
	A2	2003/0157351 A1	08-21-2003	Swatloski et al.	

FOREIGN PATENT DOCUMENTS						
Examiner Initials*	Cite <sup>1</sup> No.	Foreign Patent Document Country Code <sup>2</sup> Number <sup>3</sup> Kind Code <sup>4</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>5</sup>
	B1	WO 98/20162 A2, A3	05-14-1998	Clinical Micro Sensors Inc		
	B2	WO 98/57159 A1	12-17-1998	Clinical Micro Sensors Inc		

NON PATENT LITERATURE DOCUMENTS						
Examiner Initials*	Cite <sup>1</sup> No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.				T <sup>5</sup>
	C1	BOSMAN, A.W., et al., "About Dendrimers: Structure, Physical Properties and Applications", Chem. Rev., 1999, 99:1665-1688.				
	C2	CHECHIK, V., et al., "Reactions and Reactivity in Self-Assembled Monolayers", Adv. Mater., 2000, 12(16):1161-1171.				
	C3	FLINK, S., et al., "Sensor Functionalities in Self-Assembled Monolayers", Adv. Mater., 2000, 12(18):1315-1328.				
	C4	HINTERDORFER et al., "Surface attachment of ligands and receptors for molecular recognition force technology", Colloids and Surfaces B: Biointerfaces, 2002, 23:115-123.				
	C5	JEPPESEN, C., et al., "Impact of Polymer Tether Length on Multiple Ligand Receptor Bond Formation", Science, 2001, 293:465-468.				
	C6	KREPPEL et al., "Dynamic Glycosylation of Nuclear and Cytosolic Proteins. CLONING AND CHARACTERIZATION OF A UNIQUE O-GlcNAc TRANSFERASE WITH MULTIPLE TETRATRICOPEPTIDE REPEATS," J. Biol. Chem., 1997, 272(14):9308-9315.				
	C7	LAHIRI et al., "A Strategy for the Generation of Surfaces Presenting Ligands for Studies of Binding Based on an Active Ester as a Common Reactive Intermediate: A Surface Plasmon Resonance Study", Analytical Chemistry, 1999, 71(4):777-790.				
	C8	LUBAS et al., "Functional Expression of O-linked GlcNAc Transferase. DOMAIN STRUCTURE AND SUBSTRATE SPECIFICITY," J. Biol. Chem., 2000, 275(15):10983-10988.				
	C9	MATTHEWS, O.A., et al., "Dendrimers-Branching Out From Curiosities Into New Technologies", Prog. Polym. Sci., 1998, 23:1-56.				
	C10	SPANGLER et al., "Design and Synthesis of Dendritic Tethers for the Immobilization of Antibodies for the Detection of Class A Bioterror Pathogen", Poly Preprints, 2004, 45(1):524-525.				
	C11	WILLEMSSEN et al., "Simultaneous Height and Adhesion Imaging of Antibody-Antigen Interactions by Atomic Force Microscopy," Biophys. J., 1998, 75:2220-2228.				

Examiner Signature	Date Considered
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\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup>Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup> Applicant is to place a check mark here if English Language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the complete application form to the USPTO. Time will vary depending on the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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